

In the claims:

Please amend the claims as indicated below.

1.-10. (Cancelled)

11. (Currently Amended) A chemical mechanical polisher for planarizing a film on one side of a substrate having two sides, the polisher comprising:

B1 at least one light source that is operable to transmit~~transmits~~ light toward the substrate from the side of the substrate with the film to illuminate at least one section on the film and ~~create at least one reflected light signal~~ reflect light off the illuminated section of the film; and that is received by

at least one device to receive the reflected light from the film on the substrate while the film is being polished, the at least one device being operable to monitor~~that monitors~~ a dimensional change of the film based on the reflected light from the film on the substrate~~reflected light signal~~.

12. (Original) The polisher as claimed in claim 11 wherein the at least one device is positioned on the same side of the substrate as the light source.

C1 13. (Original) The polisher as claimed in claim 11 wherein each monitored section is minimized in size to remove signal problems.

14. (Currently Amended) The polisher as claimed in claim 11, wherein the light source is configured to illuminate only one section is illuminated, the section illuminated being which is a dedicated measurement area.

15. (Currently Amended) The polisher as claimed in claim 11, wherein the light source is configured to illuminate more than one section is illuminated.

16. (Currently Amended) A chemical mechanical polisher for planarizing a film on one side of a substrate having two sides, the polisher comprising:

at least one light source that is configured to transmit~~transmits~~ light toward the substrate from the side of the substrate with the film to illuminate at least one section on the film and

~~create at least one reflected light signal~~ reflect light off the illuminated section; and that is received by

~~at least one means for monitoring thickness change based on the reflected light signal for receiving the reflected light from the film on the substrate while the film is subject to thickness changes, the at least one means being operable to monitor thickness changes of the film based on the reflected light from the film on the substrate.~~

(17. (Currently Amended) The polisher as claimed in claim 16 wherein the at least one means for monitoring thickness change based on the reflected light signal comprises a photodetector connected to one of an interferometer or and a spectrophotometer.

18. (Original) The polisher as claimed in claim 16 wherein each monitored section is minimized in size to remove signal problems.

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(19. (Currently Amended) The polisher as claimed in claim 16, wherein the light source is configured to illuminate only one section is illuminated, the section illuminated being which is a dedicated measurement area.

20.-31. (Cancelled)

(32. (New) The polisher as claimed in claim 11 wherein the device that monitors a dimensional change includes a photodetector connected for sending signals to one of an interferometer and a spectrophotometer.

33. (New) The polisher as claimed in claim 11 wherein the light source is a laser.

34. (New) The polisher as claimed in claim 16 wherein the at least one means is positioned on the same side of the substrate as the light source.

(35. (New) The polisher as claimed in claim 16 wherein the light source is configured to illuminate only one section, the section illuminated being a dedicated measurement area.

36. (New) A chemical mechanical polishing method for planarizing a film on one side of a substrate having two sides, the method comprising:

transmitting light from at least one light source toward the substrate from the side of the substrate with the film, the transmitted light illuminating at least one section of the film and reflecting off the at least one section of the film; and

while the film is being polished, receiving the reflected light at at least one monitoring device, and calculating a dimensional change of the film, the calculation being based on the reflected light.

37. (New) The method of claim 36, wherein:

receiving the reflected light includes receiving the reflected light at a monitoring device that is positioned on the same side of the substrate as the light source.

38. (New) The method of claim 36, wherein:

transmitting light includes transmitting light so that only one section of the film is illuminated.

39. (New) The method of claim 36, wherein:

transmitting light includes transmitting polarized light.

40. (New) The method of claim 36 wherein:

transmitting light includes transmitting light so that multiple sections of the film is illuminated.

41. (New) The method of claim 36 wherein:

transmitting light includes transmitting light so that only the section of film that is designated for monitoring is illuminated.
